Amendment dated March 11, 2008 Reply to Office Action of October 11, 2007

## AMENDMENTS TO THE CLAIMS

Docket No.: 4918-0108PUSI

1. (Currently amended) A liquid crystal display device of an in-plane switching mode which comprises a pair of polarizers which are a polarizer at an output side and a polarizer at an incident side and disposed at relative positions such that absorption axes of the polarizers are approximately perpendicular to each other and at least optically anisotropic member (A), optically anisotropic member (B) and a liquid crystal cell which are disposed between the pair of polarizers, wherein  $n_{zA}>n_{yA}$  and  $n_{xB}>n_{zB}$  when, with respect to optically anisotropic member (A) and optically anisotropic member (B), refractive indices in a direction of an inplane slow axis are represented by n<sub>xA</sub> and n<sub>xB</sub>, respectively, refractive indices in a direction in plane and perpendicular to the direction of an in-plane slow axis are represented by n<sub>yA</sub> and n<sub>yB</sub>, respectively, and refractive indices in a direction of a thickness are represented by n<sub>zA</sub> and n<sub>zB</sub>, respectively, each measured using light having a wavelength of 550 nm[[;]], wherein the liquid crystal display device is in configuration (1) or configuration (2), wherein

(1) optically anisotropic member (A) and optically anisotropic member (B) are disposed between the polarizer at the incident side and the liquid crystal cell, the absorption axis of the polarizer at the output side and the in plane slow axis of the liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, the in-plane slow axis of optically anisotropic member (A) and the in plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel [[or]] approximately perpendicular to each other[[;]], and the in-plane slow axis of optically anisotropic member [[(A)]] (B) and the absorption in plane slow axis of a polarizer disposed eloser to the liquid crystal of the liquid crystal cell under application of no voltage

Docket No.: 4918-0108PUS1

are disposed at relative positions approximately parallel to each other, optically anisotropic member (A) are disposed at relative positions approximately parallel or approximately perpendicular to each other or

(2) optically anisotropic member (A) and optically anisotropic member (B) are disposed between the polarizer at the output side and the liquid crystal cell, the absorption axis of the polarizer at the incident side and the in-plane slow axis of the liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, the in-plane slow axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel to each other, and the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal cell under application of no voltage are disposed at relative positions approximately parallel to each other, and wherein

an in-plane retardation Re(A), a retardation in the direction of the thickness  $R_{th}$  (A) of optically anisotropic member (A), and an in-plane retardation  $R_e(B)$ , a retardation in the direction of the thickness  $R_{th}(B)$  of optically anisotropic member (B) satisfy the following formulae:

 $70 \leq R_e(A) \leq 120$ 

 $-65 \leq R_{\underline{th}}(A) \leq -25$ ,

 $50 \leq R_e(B) \leq 110$  and

 $25 \leq R_{th}(B) \leq 70$ 

## wherein

 $\underline{R_e(A)} = (\underline{n_{xA}} - \underline{n_{yA}}) \times \underline{d_A} \underline{R_e(B)} = (\underline{n_{xB}} - \underline{n_{yB}}) \times \underline{d_B}.$ 

 $R_{th}(A) = [(n_{xA} + n_{yA})/2 - n_{zA}] \times d_A$ ,  $R_{th}(B) = [(n_{xB} + n_{yB})/2 - n_{zB}] \times d_B$ ,

da and de representing thicknesses of optically anisotropic member (A) and (B),

Application No.: 10\579,739 Docket No.: 4918-0108PUS1

Amendment dated March 11, 2008

Reply to Office Action of October 11, 2007

respectively, and the units of retardations in the formulae described above are expressed by nm.

2. (Currently amended) [[The]] A liquid crystal display device according to Claim 1 of an in-plane switching mode which comprises a pair of polarizers which are a polarizer at an output side and a polarizer at an incident side and disposed at relative positions such that absorption axes of the polarizers are approximately perpendicular to each other and at least optically anisotropic member (A), optically anisotropic member (B) and a liquid crystal cell which are disposed between the pair of polarizers, wherein  $n_{zA} > n_{yA}$  and  $n_{xB} > n_{zB}$  when, with respect to optically anisotropic member (A) and optically anisotropic member (B), refractive indices in a direction of an in-plane slow axis are represented by  $n_{xA}$  and  $n_{xB}$ , respectively, refractive indices in a direction in plane and perpendicular to the direction of an in-plane slow axis are represented by  $n_{yA}$  and  $n_{yB}$ , respectively, and refractive indices in a direction of a thickness are represented by  $n_{zA}$  and  $n_{zB}$ , respectively, each measured using light having a wavelength of 550 nm, wherein the liquid crystal display device is in configuration (1) or configuration (2), wherein

(1) optically anisotropic member (A) and optically anisotropic member (B) are disposed between the polarizer at the incident side and the liquid crystal cell, the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions parallel to each other, optically anisotropic member (A) and optically anisotropic member (B) are disposed between the liquid crystal cell and the polarizer at the incident side, and the in-plane slow [[axes]] axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member

Docket No.: 4918-0108PUS1

Application No.: 10\579,739

Amendment dated March 11, 2008

Reply to Office Action of October 11, 2007

(B) are disposed at relative positions approximately parallel to each other, the inplane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, or

(2) optically anisotropic member (A) and optically anisotropic member (B) are disposed between the polarizer at the output side and the liquid crystal cell, the absorption axis of the polarizer at the output side and the in-plane slow axis of a liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions perpendicular to each other, and the in-plane slow axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel to each other, the in-plane slow axis of optically anisotropic member (B) and the in-plane slow axis of the liquid crystal of the liquid crystal cell under application of no voltage are disposed at relative positions approximately perpendicular to each other, and wherein

an in-plane retardation Re(A), a retardation in the direction of the thickness  $R_{th}(A)$  of optically anisotropic member (A), and an in-plane retardation  $R_e(B)$ , a retardation in the direction of the thickness  $R_{th}(B)$  of optically anisotropic member (B) satisfy the following formulae:

 $30 \le R_e(A) \le 150$ .

 $-90 \leq R_{th}(A) \leq -15,$ 

 $40 \le R_e(B) \le 150$  and

 $\underline{20 \leq R_{th}(B) \leq 75},$ 

wherein  $R_e$  (A)= $(n_{xA}-n_{yA})\times d_A$   $R_e$  (B)= $(n_{xB}-n_{yB})\times d_B$ .

 $\underline{R_{th}}(A) = [(\underline{n_{xA}} + \underline{n_{yA}})/2 - \underline{n_{zA}}] \times \underline{d_A}, \ \underline{R_{th}}(B) = [(\underline{n_{xB}} + \underline{n_{yB}})/2 - \underline{n_{zB}}] \times \underline{d_B},$ 

Application No.: 10\579,739 Amendment dated March 11, 2008

Reply to Office Action of October 11, 2007

<u>d</u><sub>A</sub> and <u>d</u><sub>B</sub> representing thicknesses of optically anisotropic member (A) and (B), respectively, and the units of retardations in the formulae described above are expressed by nm.

3·10. (Canceled)

11. (Previously presented) The liquid crystal display device according to Claim 1,

wherein an absolute value of a difference between  $n_{xA}$  and  $n_{zA}$  is 0.003 or smaller,

and an absolute value of a difference between  $n_{vB}$  and  $n_{zB}$  is 0.003 or smaller.

12. (Previously presented) The liquid crystal display device according to Claim 1,

wherein optically anisotropic member (A) comprises a layer selected from following

layers (i) to (iii):

(i) A layer comprising a material having a negative value of intrinsic

birefringence,

(ii) A layer comprising discotic liquid crystal molecules or lyotropic liquid

crystal molecules,

(iii) A layer comprising a photo-isomerizable substance.

13. (New) The liquid crystal display device according Claim 1, wherein optically

anisotropic member (A) is disposed at a position closer to the liquid crystal cell than

optically anisotropic member (B).

14. (New) The liquid crystal display device according to Claim 2, wherein optically

anisotropic member (B) is disposed at a position closer to the liquid crystal cell than

6

Docket No.: 4918-0108PUS1

optically anisotropic member (A).

15. (New) A liquid crystal display device of an in plane switching mode which comprises a pair of polarizers which are a polarizer at an output side and a polarizer at an incident side and disposed at relative positions such that absorption axes of the polarizers are approximately perpendicular to each other and at least optically anisotropic member (A), optically anisotropic member (B) and a liquid crystal cell which are disposed between the pair of polarizers, wherein n<sub>zA</sub>>n<sub>yA</sub> and n<sub>xB</sub>>n<sub>zB</sub> when, with respect to optically anisotropic member (A) and optically anisotropic member (B), refractive indices in a direction of an in-plane slow axis are represented by n<sub>xA</sub> and n<sub>xB</sub>, respectively, refractive indices in a direction in plane and perpendicular to the direction of an in-plane slow axis are represented by nyA and n<sub>vB</sub>, respectively, and refractive indices in a direction of a thickness are represented by n<sub>zA</sub> and n<sub>zB</sub>, respectively, each measured using light having a wavelength of 550 nm, wherein the in plane slow axis of optically anisotropic member (A) and the in-plane slow axis of optically anisotropic member (B) are disposed at relative positions approximately parallel or approximately perpendicular to each other; and the in-plane slow axis of optically anisotropic member (A) and the absorption axis of a polarizer disposed closer to optically anisotropic member (A) are disposed at relative positions approximately parallel or approximately perpendicular to each other, and wherein optically anisotropic member (A) comprises an oriented layer of a laminate having a layer comprising material having a negative value of intrinsic birefringence and a layer comprising other materials laminated to at least one face of said layer comprising the material having a negative value of intrinsic birefringence.

Application No.: 10\579,739

Amendment dated March 11, 2008

Reply to Office Action of October 11, 2007

16. (New) The liquid crystal display device according to Claim 15, wherein optically

Docket No.: 4918-0108PUS1

anisotropic member (A) is obtained by stretching said laminate.

17. (New) The liquid crystal display device according to Claim 15, wherein the

laminate of optically anisotropic member (A) has a structure in which both faces of

said layer comprising the material having a negative value of intrinsic birefringence

are laminated to layers comprising other materials via a layer of an adhesive resin.

18. (New) The liquid crystal display device according to Claim 15, wherein the layer

comprising other materials is a layer having substantially no orientation.

19. (New) The liquid crystal display device according to Claim 16, wherein the layer

comprising other materials is a layer having substantially no orientation.

20. (New) The liquid crystal display device according to Claim 17, wherein the layer

comprising other materials is a layer having substantially no orientation.

8 GMD/mua